

## Abstract of the Disclosure

Disclosed are isolated polypeptides having glucose isomerase activity selected from:

(a) a polypeptide having an amino acid sequence which has at least 95% identity with amino acids of SEQ ID NO:2;

(b) a variant of the polypeptide having an amino acid sequence of SEQ ID NO:2 comprising a substitution, deletion, and/or insertion of one or more amino acids;

(c) a fragment of (a) that has glucose isomerase activity; and

(d) a polypeptide having a pH optimum in the range of 5.7 to 6.3 at 60 °C, a pH optimum in the range of 6.1 to 6.7 at 90 °C and a temperature optimum of above 90 °C.

Also disclosed are isolated nucleic acid sequences encoding the polypeptides, nucleic acid constructs, vectors, and host cells comprising the nucleic acid sequences as well as methods for producing and using the polypeptides.